UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,815	08/31/2001	Semir S. Haddad	01-S-017 (STMI01-00017)	1411

30425	7590	04/06/2005	EXAMINER

STMICROELECTRONICS, INC.
MAIL STATION 2346
1310 ELECTRONICS DRIVE
CARROLLTON, TX 75006

DAVIS, CYNTHIA L

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/943,815	HADDAD, SEMIR S.
	Examiner	Art Unit
	Cynthia L Davis	2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
     closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-22* is/are rejected.
7)☒ Claim(s) *23-24* is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *31 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
          application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date *1/3/2002*.
4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1.   Claims 19-22 are rejected under 35 U.S.C. 101. The claimed invention is directed to the MPEG video format, which is non-statutory subject matter.

Claim Objections

2.   Claims 23 and 24 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claims are directed to an MPEG video format, but the claims they purport to limit are directed to an apparatus. The claims have not been treated on the merits.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kulas in view of Innoue.

Regarding claim 1, an Intra frame indexing device capable of identifying therein data packets associated with Intra frames is disclosed in Kulas, column 16, lines 25-27 (disclosing intra-frame indexing of MPEG data). A first data packet associated with a first Intra frame including location information identifying a storage address of second data packet associated with a second Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for other packets). Receiving an incoming MPEG video stream and modifying header information to include the location information in a first data packet associated with a first Intra frame is missing from Kulas. This is disclosed in Innoue, column 2, lines 16-16, and column 3, lines 24-25 (disclosing a DVR that stores an incoming MPEG stream) and column 5, lines 43-48 (disclosing modifying the headers of incoming packets). It would have been obvious to one skilled in the art at the time of the invention to use the indexing and storage method of Kulas in the DVR device of Innoue, and to put the location information in the header. The motivation would be to reduce access time to the stored media (see the abstract of Kulas) and to put the location information in a place in the packet that will not interfere with its video payload.

Regarding claim 2, said second Intra frame chronologically precedes said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the previous packet).

Regarding claim 3, said second Intra frame chronologically follows said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a

doubly linked list format, which would include location information for the following

packet).

Regarding claim 4, said location information comprises sequence information

identifying a location of a video frame sequence containing said second Intra frame is

disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked

list format, which would include location information for the second packet's video frame

data).

Regarding claim 5, said video frame sequence containing said second Intra

frame chronologically precedes a video frame sequence containing said first Intra frame

is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly

linked list format, which would include location information for the previous packet).

Regarding claim 6, said video frame sequence containing said second Intra

frame chronologically follows a video frame sequence containing said first Intra frame is

disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked

list format, which would include location information for the following packet).

Regarding claim 7, an Intra frame indexing device capable of identifying therein

data packets associated with Intra frames is disclosed in Kulas, column 16, lines 25-27

(disclosing intra-frame indexing of MPEG data). A first data packet associated with a

first Intra frame including location information identifying a storage address of second

data packet associated with a second Intra frame is disclosed in Kulas, column 13, lines

17-19 (disclosing storing the data in a doubly linked list format, which would include

location information for other packets). A digital video recorder capable of playing back

a recorded television program, a video processor capable of receiving an incoming

television program and converting said incoming television program baseband video

signal capable of being displayed on a television set coupled to said digital video

recorder; and a storage disk capable storing said incoming television program; and an

apparatus for implementing special mode playback operations, and receiving an

incoming MPEG video stream and modifying header information to include location

information in a first data packet associated with a first Intra frame is missing from

Kulas. This is disclosed in Innoue, column 2, lines 16-16, and column 3, lines 24-25

(disclosing a DVR with a video processor and storage disk that stores an incoming

MPEG stream) and column 5, lines 43-48 (disclosing modifying the headers of incoming

packets). It would have been obvious to one skilled in the art at the time of the

invention to use the indexing and storage method of Kulas in the DVR device of Innoue,

and to place the location information in the headers of the packets. The motivation

would be to reduce access time to the stored media (see the abstract of Kulas), and to

put the location information in a place that does not interfere with the packet's video

payload.

Regarding claim 8, said second Intra frame chronologically precedes said first

Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a

doubly linked list format, which would include location information for the previous

packet).

Regarding claim 9, said second Intra frame chronologically follows said first Intra

frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a

doubly linked list format, which would include location information for the following

packet).

Regarding claim 10, said location information comprises sequence information

identifying a location of a video frame sequence containing said second Intra frame is

disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked

list format, which would include location information for the second packet's video frame

data).

Regarding claim 11, said video frame sequence containing said second Intra

frame chronologically precedes a video frame sequence containing said first Intra frame

is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly

linked list format, which would include location information for the previous packet).

Regarding claim 12, said video frame sequence containing said second Intra

frame chronologically follows a video frame sequence containing said first Intra frame is

disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked

list format, which would include location information for the following packet).

Regarding claim 13, identifying MPEG data packets associated with Intra frames

is disclosed in Kulas, column 16, lines 25-27 (disclosing intra-frame indexing of MPEG

data). A first data packet associated with a first Intra frame including location

information identifying a storage address of second data packet associated with a

second Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the

data in a doubly linked list format, which would include location information for other

packets). Receiving an incoming MPEG video stream and modifying header

information to include the location information in a first data packet associated with a

first Intra frame is missing from Kulas. This is disclosed in Innoue, column 2, lines 16-

16, and column 3, lines 24-25 (disclosing a DVR that stores an incoming MPEG stream)

and column 5, lines 43-48 (disclosing modifying the headers of incoming packets). It

would have been obvious to one skilled in the art at the time of the invention to use the

indexing and storage method of Kulas in the DVR device of Innoue. The motivation

would be to reduce access time to the stored media (see the abstract of Kulas) and to

include the location information a portion of the packet that will not interfere with the

packet's video payload.

Regarding claim 14, said second Intra frame chronologically precedes said first

Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a

doubly linked list format, which would include location information for the previous

packet).

Regarding claim 15, said second Intra frame chronologically follows said first

Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a

doubly linked list format, which would include location information for the following

packet).

Regarding claim 16, said location information comprises sequence information

identifying a location of a video frame sequence containing said second Intra frame is

disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked

list format, which would include location information for the second packet's video frame

data).

Regarding claim 17, said video frame sequence containing said second Intra frame chronologically precedes a video frame sequence containing said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the previous packet).

Regarding claim 18, said video frame sequence containing said second Intra frame chronologically follows a video frame sequence containing said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the following packet).

Regarding claim 19, an MPEG format signal comprising a plurality of data packets, said plurality of data packets comprising first data packet associated with a first Intra frame, wherein said first data packet comprising location information identifying a location in the plurality of data packets of a second data packet associated with a second Intra frame is disclosed in Kulas, column16, line 25 (disclosing storage of MEPG) and column 13, lines 17-19 (disclosing storage of the mpeg data in a doubly-linked list, which would include location information for other packets in all the packets in the list). The location information being in a packet header is missing from Kulas. However, MPEG packets with modifiable headers containing information are disclosed in Innoue, column 5, lines 43-48. It would have been obvious to one skilled in the art at the time of the invention to store the location information in the packet header. The motivation would be to have a place to put the location information that would not interfere with the video payload of the packet.

Regarding claim 20, said second Intra frame chronologically precedes said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the previous packet).

Regarding claim 21, said second Intra frame chronologically follows said first Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the following packet).

Regarding claim 22, said location information comprises sequence information identifying a location of a video frame sequence containing said second Intra frame is disclosed in Kulas, column 13, lines 17-19 (disclosing storing the data in a doubly linked list format, which would include location information for the second packet's video frame data).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia L Davis whose telephone number is (571) 272-3117. The examiner can normally be reached on 8:30 to 6, Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

CLD
4/4/2005   4/4/05

ALPUS H. HSU
PRIMARY EXAMINER